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(FILE 'HOME' ENTERED AT 10:31:06 ON 28 NOV 2005)

FILE 'CAPLUS' ENTERED AT 10:31:18 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:31:28 ON 28 NOV 2005

L1 1 S 91-08-7/RN  
L2 1 S 584-84-9/RN  
L3 1 S 108-19-0/RN

FILE 'CAPLUS' ENTERED AT 10:33:31 ON 28 NOV 2005

L4 625 S L1 AND L2  
L5 2 S L4 AND L3

FILE 'REGISTRY' ENTERED AT 10:34:26 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:34:27 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:34:36 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:34:36 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:34:41 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:34:41 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:35:10 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:35:10 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:35:14 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:35:14 ON 28 NOV 2005

FILE 'REGISTRY' ENTERED AT 10:35:22 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:35:22 ON 28 NOV 2005

L6 3 S L4 AND MONOAMINE

=> d bib abs 1-3

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1988:78546 CAPLUS  
DN 108:78546  
TI Lubricating grease composition  
IN Koizumi, Takehiro; Matsuzawa, Hideo; Tanaka, Tatsumitsu  
PA Showa Shell Sekiyu K. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62256893	A2	19871109	JP 1986-98172	19860430
PRAI	JP 1986-98172		19860430		

AB Thickeners for lubricating greases, present at 2-30 weight% (preferably 5-20 weight%) concentration, contain the reaction products of (a) a **monoamine** compound of formula R1NH2 (R1 is an unsatd. or saturated C6-20 alkyl or C6-10 aryl); (b) a diisocyanate compound of formula OCNR2NCO (R2 is a divalent C6-20 aryl); and (c) a diamine compound of formula H2NR3NH2 (R3 is a

divalent C2-12 alkylene or C6-15 aryl). Thus, a mineral base oil was blended with 12 weight% of a thickener (prepared by reaction of oleyl amine 1.0, a 2,4- and 2,6-mixed tolylenediisocyanate 0.93, and ethylenediamine 0.44 mol) to obtain a lubricating grease having a dropping point of 262°, vs. 178° for a conventional thickener.

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1987:70127 CAPLUS  
 DN 106:70127  
 TI Method for preparation of polyurea-thickened lubricant  
 IN Roeckert, Erich; Gadiel, Heinz; Bergmann, Siegfried; Schmidt, Joachim; Marx, Bruno; Pohl, Siegmund; Koecher, Wolfgang  
 PA VEB Petrolchemisches Kombinat Schwedt, Ger. Dem. Rep.  
 SO Ger. (East), 3 pp.  
 CODEN: GEXXA8  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 238167	A3	19860813	DD 1976-201890	19761129
PRAI	DD 1976-201890		19761129		

AB A polyurea-thickened lubricant is prepared by reaction of **monoamine** and diisocyanate in the lubricant at 2:(0.95-0.98) amine-diisocyanate ratio and 40-80°, followed by heating at 110-130°. The lubricant can be diluted with organic solvents prior to the reaction, and the solvents are removed under reduced pressure after the completion of the reaction. Thus, 150 kg MDI in 600 kg hydraulic oil was heated at 60°, reacted with 114 kg PhNH<sub>2</sub> in 400 kg hydraulic oil, and heated at 120° for 30 min to obtain the final product.

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1964:440224 CAPLUS  
 DN 61:40224  
 OREF 61:6954f-h  
 TI Phenylcyclopropylamides  
 PA Lakeside Laboratories, Inc.  
 SO 5 pp.  
 DT Patent  
 LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 961313		19640617	GB	
PRAI	US		19600226		

GI For diagram(s), see printed CA Issue.

AB A solution of 20.5 g. p-ClC<sub>6</sub>H<sub>4</sub>OCH<sub>2</sub>COC<sub>2</sub>H<sub>5</sub> in 100 ml. C<sub>6</sub>H<sub>6</sub> was added with stirring at room temperature to a mixture of 13.3 g.

trans-phenylcyclopropylamine

(I) and 13.8 g. K<sub>2</sub>CO<sub>3</sub> in 200 ml. C<sub>6</sub>H<sub>6</sub> to give a precipitate and the reaction mixture stirred an addnl. hr., refluxed 3 hrs., and filtered hot. The filtrate yielded a second precipitate (I.HCl salt) which was removed and the filtrate washed with 5% solution NaOH, H<sub>2</sub>O, 5% aqueous HCl, and H<sub>2</sub>O resp. until neutral and distilled to give in 53% yield trans-II (R = p-ClC<sub>6</sub>H<sub>4</sub>OCH<sub>2</sub>), m. 83-5°. Similarly prepared II were (R, m.p., % yield given): 2-piperidino methyl, -, 100; 2-ClCH<sub>2</sub>, 73-4°, 72; CH<sub>2</sub>:CH, 77°, 83; 2-(5-oxopyrrolidinyl), -, 82. The title compds. are potent inhibitors of **monoamine** oxidase. I causes marked increase in blood pressure and heart rate, as well as amphetamine-like stimulation of the central nervous system.

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L2 1 S 584-84-9/RN  
L3 1 S 108-19-0/RN

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L4 625 S L1 AND L2  
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FILE 'REGISTRY' ENTERED AT 10:34:36 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:34:36 ON 28 NOV 2005

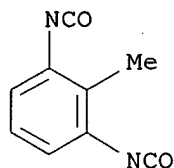
FILE 'REGISTRY' ENTERED AT 10:34:41 ON 28 NOV 2005

FILE 'CAPLUS' ENTERED AT 10:34:41 ON 28 NOV 2005

=> d l1

YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 91-08-7 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Benzene, 1,3-diisocyanato-2-methyl- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Isocyanic acid, 2-methyl-m-phenylene ester (8CI)  
OTHER NAMES:  
CN 2,6-Diisocyanatotoluene  
CN 2,6-TDI  
CN 2,6-Toluylene diisocyanate  
CN 2-Methyl-m-phenylene isocyanate  
CN m-Tolylene diisocyanate  
CN Toluene 2,6-diisocyanate  
CN Tolylene 2,6-diisocyanate  
FS 3D CONCORD  
DR 137091-34-0  
MF C9 H6 N2 O2  
CI COM  
LC STN Files: ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CANCERLIT,  
CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CHEMSAFE, CIN,  
CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB,  
MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER,  
ULIDAT, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

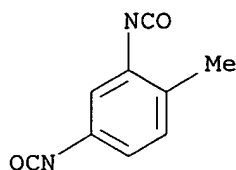


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

767 REFERENCES IN FILE CA (1907 TO DATE)  
 196 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 767 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 12 y

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 584-84-9 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Benzene, 2,4-diisocyanato-1-methyl- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Isocyanic acid, 4-methyl-m-phenylene ester (8CI)  
 OTHER NAMES:  
 CN 1,3-Diisocyanato-4-methylbenzene  
 CN 2,4-Diisocyanato-1-methylbenzene  
 CN 2,4-Diisocyanatotoluene  
 CN 2,4-TDI  
 CN 2,4-Toluene diisocyanate  
 CN 2,4-Toluylene diisocyanate  
 CN 2,4-Tolylene diisocyanate  
 CN 4-Methyl-1,3-phenylene diisocyanate  
 CN 4-Methyl-m-phenylene diisocyanate  
 CN 4-Methyl-m-phenylene isocyanate  
 CN NSC 4791  
 CN NSC 56759  
 CN Toluene 2,4-diisocyanate  
 FS 3D CONCORD  
 DR 856307-56-7, 86-91-9, 59539-76-3  
 MF C9 H6 N2 O2  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DETHERM\*, DIPPR\*,  
 EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,  
 MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SCISEARCH,  
 SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3659 REFERENCES IN FILE CA (1907 TO DATE)  
 1402 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3659 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 44 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 13

YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 108-19-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Biuret (8CI)

OTHER NAMES:

CN Allophanamide

CN Allophanic acid amide

CN Allophanimidic acid

CN Carbamylurea

CN Desmodeyn 75

CN Dicarbamylamine

CN HO 1

CN HO 1 (biuret)

CN Isobiuret

CN NSC 8020

CN Urea, (aminocarbonyl)-

CN Ureidoformamide

FS 3D CONCORD

DR 1866-97-3

MF C2 H5 N3 O2

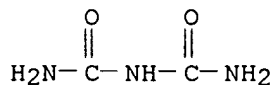
CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1478 REFERENCES IN FILE CA (1907 TO DATE)  
 172 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1478 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 35 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d bib abs 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1981:408136 CAPLUS  
 DN 95:8136  
 TI Nitrogen-15 NMR spectroscopy. 27. Spectroscopic characterization of polyurethanes and related compounds  
 AU Kricheldorf, Hans R.; Hull, William E.  
 CS Inst. Makromol. Chem., Univ. Freiburg, Freiburg, D-7800, Fed. Rep. Ger.  
 SO Makromolekulare Chemie (1981), 182(4), 1177-96  
 CODEN: MACEAK; ISSN: 0025-116X  
 DT Journal  
 LA English  
 AB Natural abundance <sup>15</sup>N and <sup>13</sup>C NMR spectra of various polyurethanes were measured in trifluoroacetic acid. The polyurethanes were built up from aliphatic diols, polyesters of diols or oligoethylene glycols on the one hand, and from aliphatic  $\alpha,\omega$ -diisocyanates or aromatic diisocyanates, on the other hand. In addition to the polyurethanes various low mol. weight model compds., such as ureas, biurets, allophanic acid esters, uretdiones, and 1,3,5-triazinetriones, were investigated. The substituent effects of Ph groups in the above compds. were studied in various solvents. <sup>15</sup>N NMR spectra were more useful than <sup>13</sup>C NMR spectra for the identification of the various isocyanate derivs., while <sup>13</sup>C NMR spectra had the advantage of a better signal-to-noise ratio.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1975:592616 CAPLUS  
 DN 83:192616  
 TI Biuret group-containing polyisocyanates  
 IN Woerner, Frank P.; Pohlemann, Heinz; Doerfel, Helmut; Falkenstein, Georg  
 PA BASF A.-G., Fed. Rep. Ger.  
 SO U.S., 6 pp.  
 CODEN: USXXAM

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3903126	A	19750902	US 1973-423715	19731211
PRAI	US 1973-423715	A	19731211		

AB About 20 biuret group-containing polyisocyanates were prepared by reaction of aliphatic or cycloaliph. diamines [e.g., 3,3'-dimethyl-4,4'-diaminodicyclohexylmethane (I), H<sub>2</sub>N(CH<sub>2</sub>)<sub>8</sub>NH<sub>2</sub>, 1,4-cyclohexanediamine] with diisocyanates [e.g., hexamethylene diisocyanate (II), toluene diisocyanate]. Thus, I was added, dropwise, with stirring at room temperature under N to II, the mixture was heated at 140° for 7 hr, and the excess II distilled off to give a biuret-containing polyisocyanate with an NCO content of 19.9 weight%.

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	7	diisocyanate with biuret with monoamine	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/11/28 10:58

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2097	"toluene diisocyanate".clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 12:19
L2	96	l1 and biuret.clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 12:20
L3	2	l2 and monoamine.clm.	US-PGPUB; USPAT	OR	OFF	2005/11/28 12:20